Checking the Alcohol and Other Drug Health of Wisconsin Residents: The Final Report of a Statewide Household Survey, 1997

State Treatment Needs Assessment Program (STNAP)

Executive Summary and Implications

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Background

Alcohol and other drug abuse (substance abuse) is a significant health, social, public safety and economic problem. Each year in Wisconsin there are over 800 documented deaths, 10,000 traffic crashes resulting in 8,000 injuries and over 90,000 arrests all attributable to alcohol and other drug abuse. Thirty-two percent of offenders booked into jail and nearly 65 percent of prison admittees have substance abuse problems. Alcohol and drug abuse is the fourth leading cause of death in Wisconsin behind heart disease, cancer, and stroke and it is the fourth leading cause for hospitalization behind mental illness, heart disease, and cancer. For males age 15 to 44, substance abuse is the most prevalent reason for hospitalization. The economic impact in Wisconsin each year attributed to substance abuse is estimated to be well over $2.6 billion dollars. Public opinion backs the seriousness of the alcohol and drug problem as documented in a 1979 Department survey of 6,000 Wisconsin adult residents. Alcoholism, crime, drug abuse, and juvenile delinquency, in that order, were listed as the top four problems facing Wisconsin.

Due to its enormous impact, the citizens of Wisconsin in general as well as state and local policy makers in the areas of human services, health care, education, criminal justice, traffic safety, industry, and economic development need objective data on the prevalence of substance abuse. This study, the first ever of its kind in Wisconsin, was intended to meet that need. In addition to counting the occurrence of alcohol and other drug abuse disorders (prevalence), the study also identified the gap between those persons needing treatment for alcohol or other drug abuse disorders and those actually receiving treatment.

About seven years ago, Congress passed a law (P.L. 102-321 Sec. 1929) requiring the federal Department of Health and Human Services to obtain needs assessment data from states in exchange for the allocation of Block Grant funds. Wisconsin receives over $20 million from this fund. This study was funded under a federal Substance Abuse and Mental Health Services Administration (SAMHSA) State Treatment Needs Assessment Program (STNAP) contract (270-95-0011). The study closely followed the guidelines and protocols developed by SAMHSA and the National Technical Center at Harvard University. This report fulfills one of the goals of the needs assessment contract, which was to provide substance abuse prevalence and treatment need data to state planners and policy makers. In addition to this study, the federally funded project includes four other studies: (1) a treatment capacity study; (2) a pregnant women study; (3) a composite indicators study; and (4) an arrestee study.

Method

To conduct the study, the State Department of Health and Family Services entered into a subcontract with the Wisconsin Survey Research Laboratory to complete about 9,000 telephone interviews on a statewide, disproportionate, stratified, probability sample of Wisconsin adult and adolescent residents. Interviewers used a computer-assisted telephone interviewing (CATI) technique with random digit dialing. The sample was augmented with lists from various directories to ensure adequate representation among racial groups. Study researchers note that the sample is slightly over-representative of women and slightly under-representative of males age 18-30. The sample is a "household" sample and omits persons living in group quarters, institutional settings, and the homeless. It also omits the 3-4 percent of the population that do not have telephones. For these reasons, the figures presented are considered "low-end" or a slight underestimate of the true situation.

The response rate for the adult household sample (n=8,460) was 68 percent. Approximately 1,565 of the adult households contained an adolescent. From this group of adolescents, 1,074 were interviewed for an approximate adolescent response rate of 69 percent. The "net" adolescent response rate, after factoring in the adult response rate, was 47 percent. The average adult response rate from similar studies conducted in 19 other states was 60.3 percent, so the Wisconsin adult sample compares favorably. The final sample data was weighted or corrected using age and gender factors, the number of telephones in the household, and the number of adults in the household.

The size of the sample and the sample design resulted in very low sampling error. For example, one of the study's findings was that 65.3 percent of the adult respondents reported use of alcohol in the past month. A 95 percent confidence interval calculation provides an upper and lower bound of plus or minus 1.24 percentage points. In other words, with the sampling error taken into account, we can be confident the percentage lies somewhere between 64.1 and 66.5.

Trained interviewers used the Substance Dependence Needs Assessment Questionnaire version 6.2 (SAMHSA & Harvard University) for adults and the Diagnostic Interview Schedule for Children-2 (NIMH & Columbia University) for adolescents. Both of these instruments result in findings consistent with the Diagnostic and Statistical Manual (DSM) III-R criteria for substance abuse and dependence. Interviewing spanned the period from August, 1996 through September, 1997, with the bulk of the interviews completed during 1997. The table that follows presents weighted demographic data on the completed adult interviews. The ethnicity distribution in the sample is comparable to that reported by the U.S. Census Bureau.

The Weighted Adult Sample (n=8,460)

Race	Male (n=3699)			Female (n=4761)			Total	1990 Census
	Milwaukee County >600 persons per sq. mi.	Urban Counties 131-600 persons per sq. mi.	Rural Counties <131 persons per sq. mi.	Milwaukee County	Urban Counties	Rural Counties		
White	445	1690	1264	636	2115	1578	7728 (91.3%)	91%
African American	90	38	3	185	76	6	398 (4.7%)	4.9%
Hispanic	34	22	3	24	22	6	111 (1.3%)	.8%
American Indian	9	54	6	10	52	6	137 (1.6%)	.8%
Asian and Other	6	19	16	7	16	22	86 (1%)	2.5%
Total	584	1823	1292	862	2281	1618	8460	100%

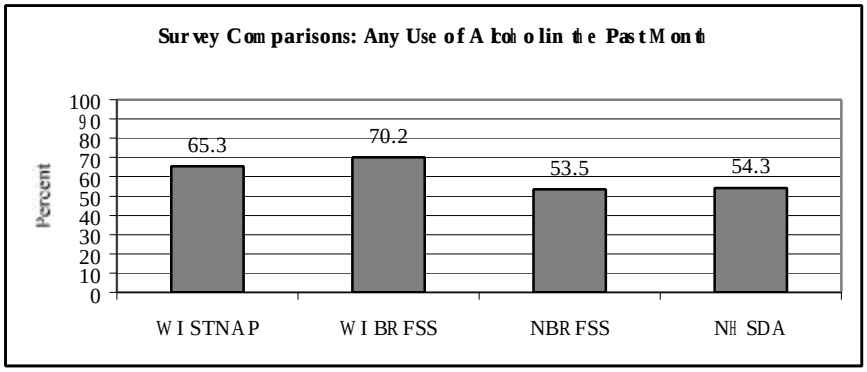
The adolescent portion of the sample is displayed in the table on the next page indicating a more even distribution by gender and purposive over-sampling of ethnic groups to ensure more valid data.

The Weighted Adolescent Sample (n= 1,074)

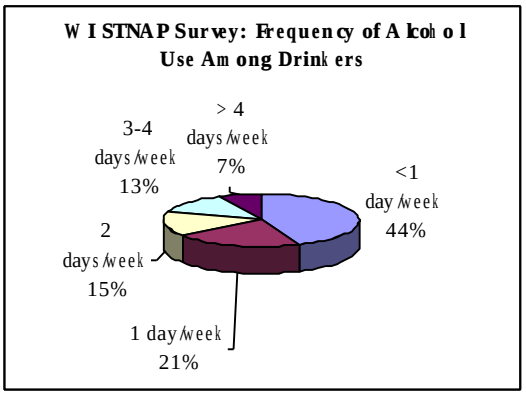
Race	Male (n=529)			Female (n=545)			Total
	Milwaukee County >600 persons per sq. mi.	Urban Counties 131-600 persons per sq. mi.	Rural Counties <131 persons per sq. mi.	Milwaukee County	Urban Counties	Rural Counties	
White	103	161	138	107	176	120	805 (75%)
African American	51	31	2	49	25	6	164 (15.3%)
Other	18	15	10	22	27	13	105 (9.8%)
Total	172	207	150	178	228	139	1074

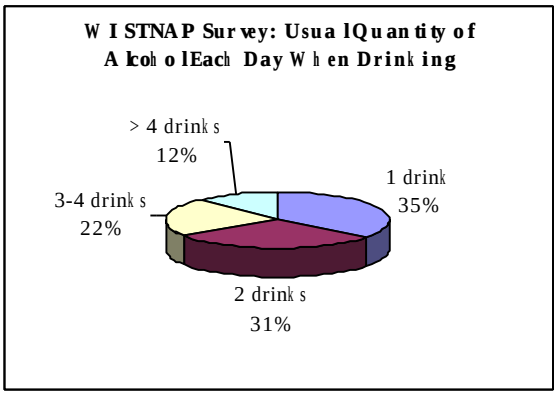
Adult Alcohol Consumption (age 18 and over)

It was asserted earlier that the findings from this study are considered to be a slight underestimate of the true situation in Wisconsin. The bar chart that follows compares this Wisconsin STNAP survey findings with the 1997 Wisconsin Behavioral Risk Factor Surveillance System survey (WI BRFSS). The chart also includes United States' averages from two 1997 national surveys - the National Behavior Risk Factor Surveillance System (NBRFSS), which is a composite of state surveys, and the National Household Survey on Drug Abuse (NHSDA). It is very apparent that Wisconsin residents greatly exceed the national average in the proportion of adults who drink alcohol. The rates among females and older adults (age 45 and over) from both Wisconsin surveys are similar. However, with the male and younger adult (age 18 to 44) samples, the WI STNAP rates are lower than the WI BRFSS rates for past month use of alcohol. This discrepancy was expected since the STNAP survey sample was over-represented among females and under-represented among young males.



How often and how much Wisconsin adults drink are questions answered in the next two charts. The majority of Wisconsin adults who drink consume alcohol on 4 or fewer days each month and have one or two drinks. Fewer than 7 percent consume alcohol nearly every day and 12 percent consume 5 or more drinks per day of drinking. It should be noted that the Centers for Disease Control has identified that 60 or more drinks in a month's time is heavy drinking that could lead to problems.

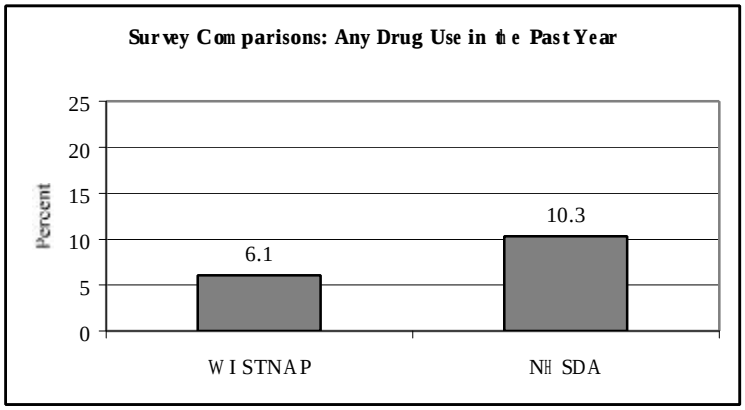




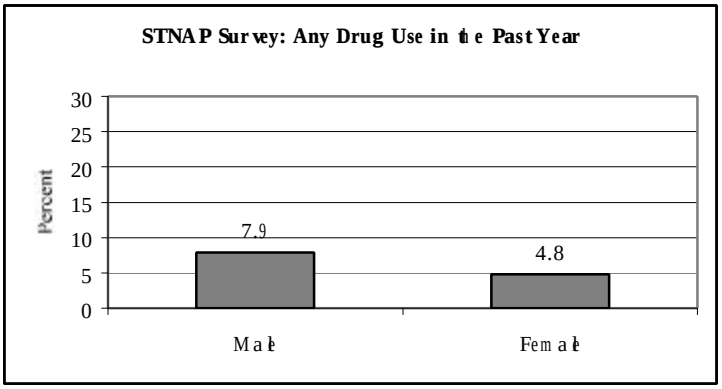
In 1987, the minimum drinking age in Wisconsin was raised to age 21. This change has significantly reduced alcohol-related traffic crashes among 18-20 year-olds. However, according to this STNAP survey, 78 percent of 18-20 year-olds still reported consuming alcohol in the past year. Sixty-seven percent of Wisconsin's senior citizens (age>60) reported consuming alcohol in the past year.

Adult Drug Use

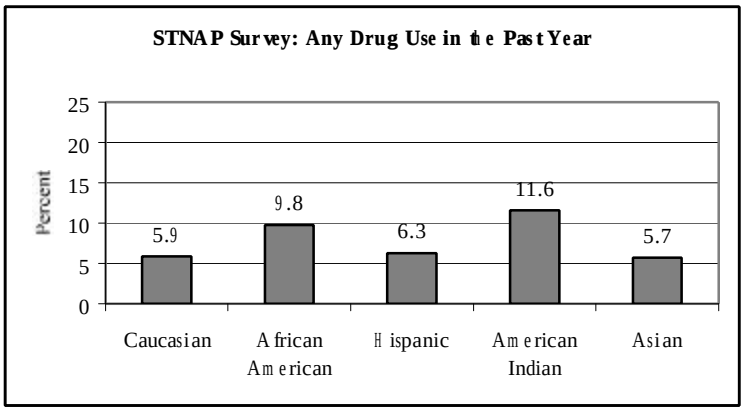
The charts that follow provide some useful comparisons of drug use and demographic characteristics. Drugs included here are marijuana, cocaine, heroin, speed, hallucinogens, and the non-medical use of strong prescription painkillers, sedatives, and stimulants. It should be noted that five percentage points of the drug use are marijuana and 1.1 percentage points include other drugs. Wisconsin adult drug use is significantly lower than the national average.



As depicted in the next chart, the use of drugs among adult males is significantly higher than females. Drug use is highest among 18-29 year-olds at 17 percent.

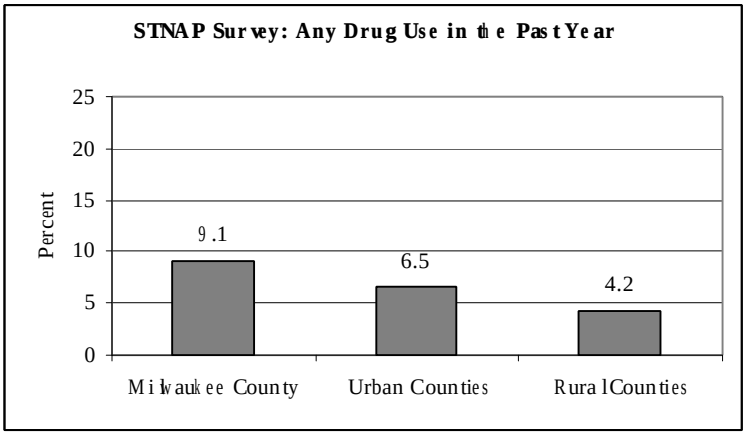


Notable differences are seen among ethnic groups in Wisconsin with American Indians and African Americans having the highest rates of drug use.

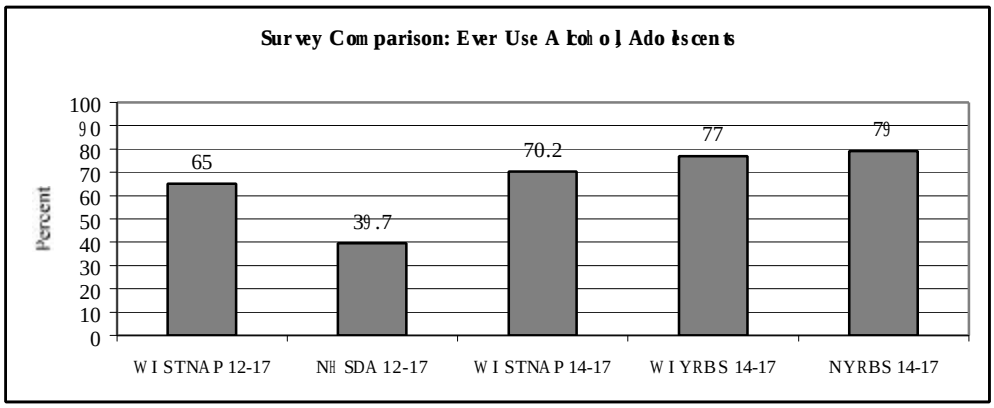


A county's population density is highly correlated with drug use as can be observed in the following chart.

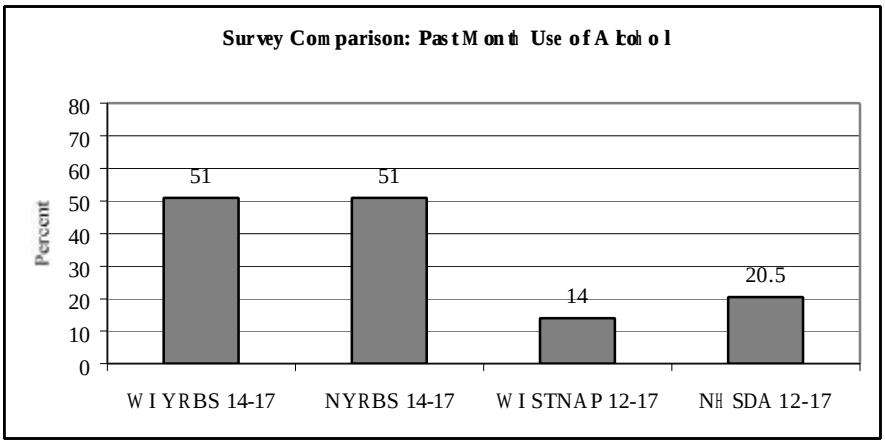
Adolescent Alcohol Consumption (Age 12-17)



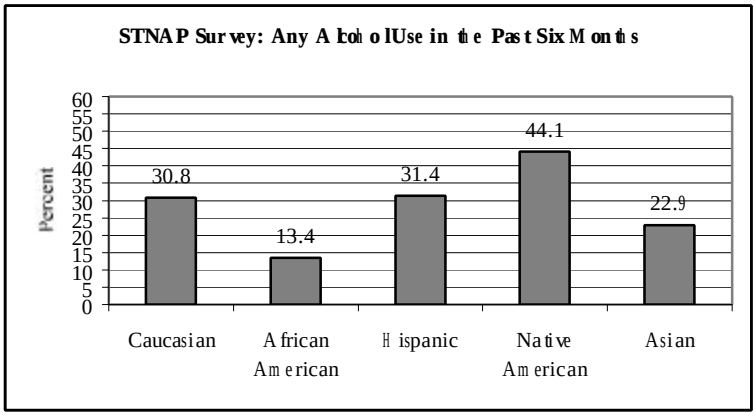
There are a couple of comparable surveys of youthful alcohol and other drug abuse against which we can compare the findings from this STNAP household survey. The first is the 1997 Youth Risk Behavior Survey (YRBS - high school ages 14-17) and the second is the 1997 National Household Survey on Drug Abuse (age 12-17). The two survey comparison charts that follow show inconsistent results. However, it is fairly certain that Wisconsin youth use alcohol at least as much as the national average. This first chart compares *lifetime use* of alcohol among adolescents.



This second chart compares *past month* use of alcohol among adolescents.



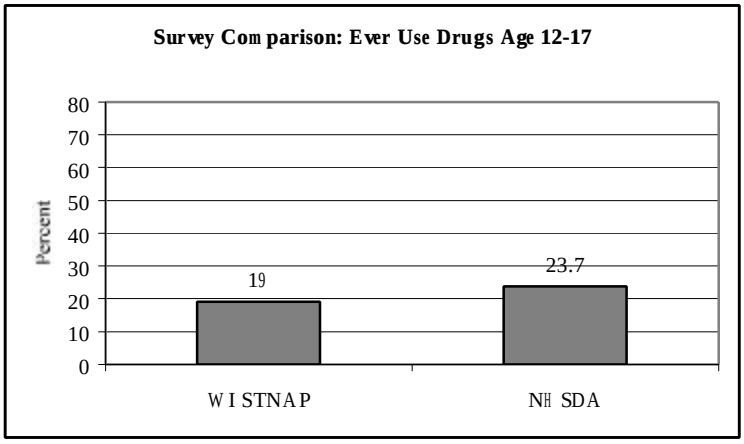
Young females (28 percent report use in the past 6 months) use alcohol at about the same rate as males (29



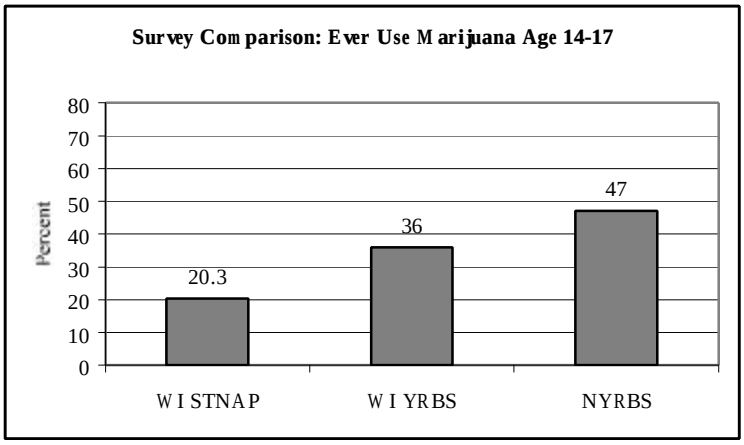
percent). The ethnicity findings in the chart on the next page are consistent with national surveys of both student and household populations.

Adolescent Drug Use

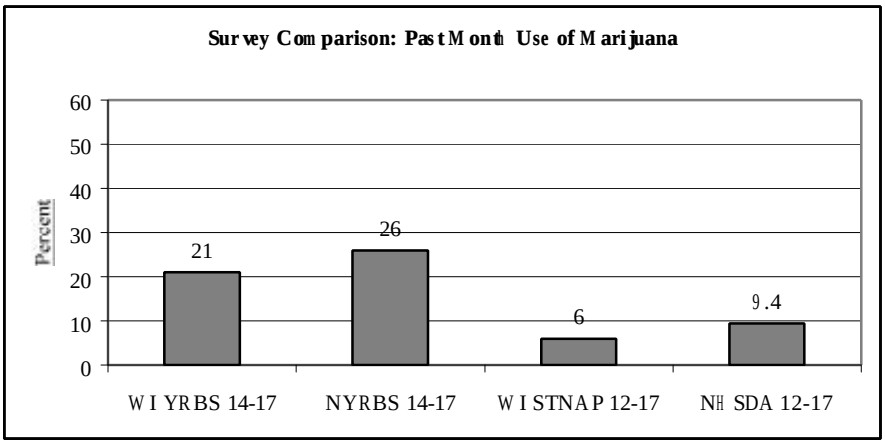
Drugs included in the youth portion of the survey are marijuana, cocaine, heroin, speed, hallucinogens, inhalants, and the non-medical use of strong prescription painkillers, sedatives, and stimulants. Both the STNAP and the YRBS surveys prove that drug use is significantly lower in Wisconsin than the national average as illustrated in the next three charts. In the chart immediately following, eighteen percentage points of the STNAP survey are marijuana and nineteen percentage points of the NHSDA survey are marijuana. This first chart compares lifetime use of *drugs* among adolescents.



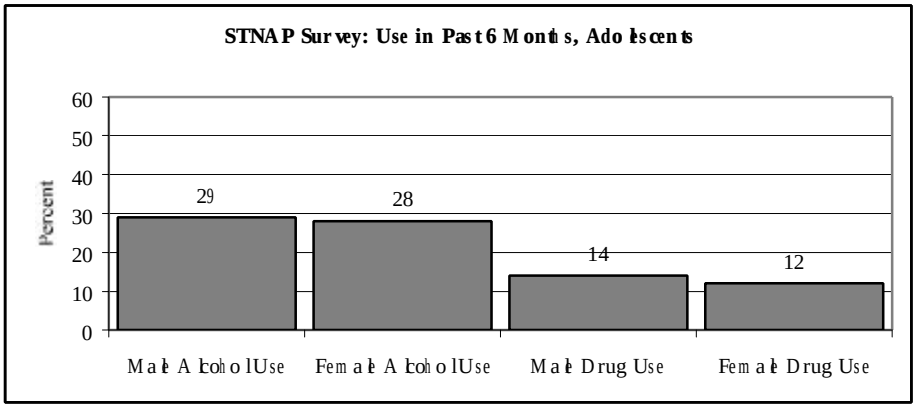
This second chart compares lifetime use of *marijuana* among adolescents.



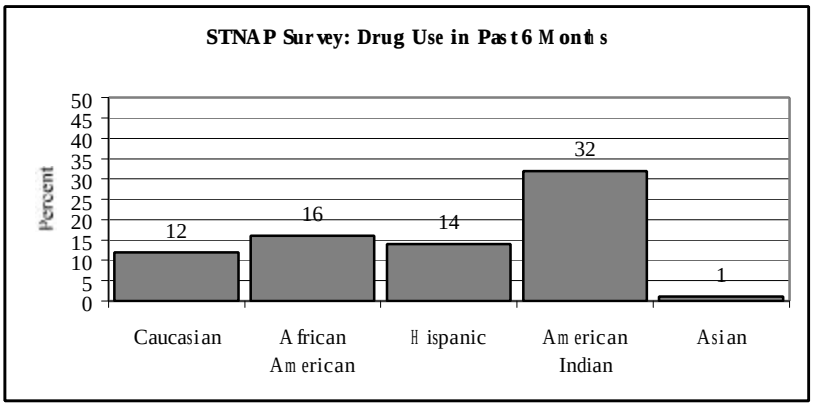
This last chart in the series compares *past month* use of marijuana among adolescents.



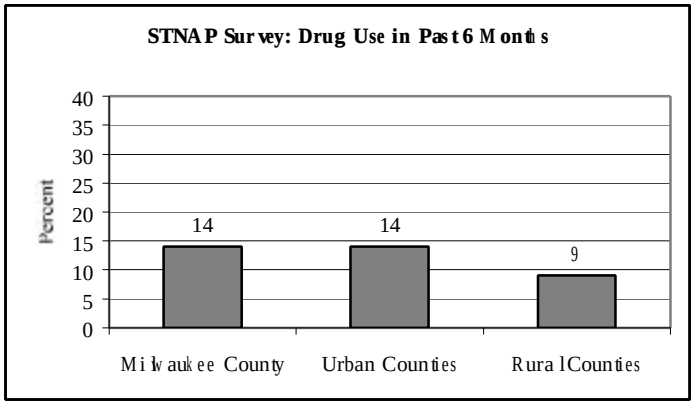
Gender differences among adolescents are much smaller than adults.



As was seen in the adult portion of the STNAP survey, American Indians and African Americans have the highest rates of drug use.

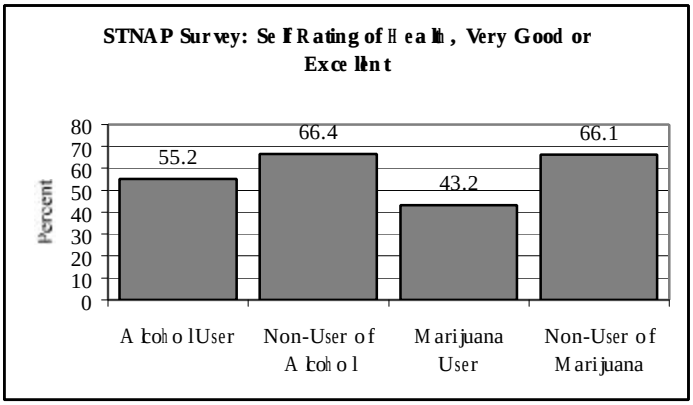


Differences by population density are portrayed in the next chart.



An important substance abuse prevention objective is to reverse the trend in lowered age of first use of alcohol or drugs. Research has shown that the younger one starts using alcohol or drugs the more likely one is to develop problems later on. This STNAP survey found that the average age of first use for alcohol was 13.7 and marijuana 14.4. Parents (their rules and example) play a significant role in the prevention of underage alcohol and illicit drug use. Of those adolescents who are using alcohol, 24 percent reported parental permission to do so. Drunkenness is a potentially dangerous aspect of adolescent alcohol use. Fourteen percent reported being drunk in the past 6 months.

There have been some health claims associated with moderate alcohol use among adults. In the chart that follows, adolescent users and nonusers (past six months) of alcohol and drugs are compared. A significantly greater proportion of non-using adolescents report their health as very good or excellent.



Alcohol and Other Drug Abuse and Dependency

When ascribing to the illness or disease concept with substance use disorders, accurate diagnosis (using DSM criteria) is critical. As an illness, alcohol or drug dependency is the progressive impairment of the body that affects the performance of vital bodily functions such as the liver, central and peripheral nervous systems, pancreas, stomach, and cardiovascular system. If left unchecked, persons will likely suffer disability and early death (the average age of death for alcohol dependents is about 54). It is also a social illness resulting in family discord and break-up, reduced productivity or unemployment, lowered academic performance,

delinquency, crime, and financial problems.

In 1951, the World Health Organization defined alcohol dependency as a disease and classified it as such in the International Classification of Diseases. By 1957, the American Medical Association marked alcohol dependency as a disease. The American Hospital Association, the American Public Health Association, the National Association of Social Workers, and the American College of Physicians have also endorsed the disease concept. A recent Gallup Poll found that almost 90 percent of Americans believe that alcohol dependency is a disease. The American Psychiatric Association's Diagnostic and Statistical Manual (referred herein as DSM) is the basis for our definition of alcohol abuse and dependence as an illness.

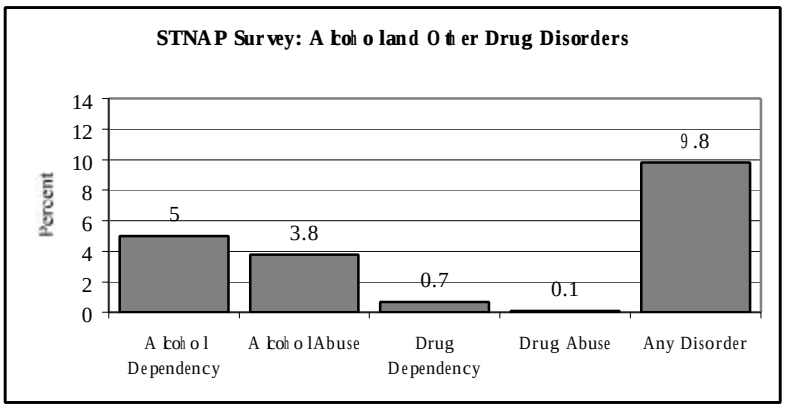
The questionnaire used in this study resulted in findings of substance abuse and dependence that are consistent with the DSM III-R definitions. "*Dependence*" was confirmed if there was a pattern of 3 or more of the following symptoms:

- o substance taken in greater and greater amounts over a period of time
- o persistent desire to use the substance or unsuccessful efforts to control use
- o much time spent getting, using, or recovering from the effects of the substance
- o frequent intoxication or withdrawal symptoms when performing at work, school, or child care or use in physically hazardous settings
- o important activities given up or diminished due to use of the substance
- o continued use of the substance despite knowledge of persistent problems caused or exacerbated by using the substance
- o marked tolerance as exhibited by diminished effects when using the same amount of the substance or using greatly increased amounts to achieve the same effects
- o withdrawal symptoms
- o use of the substance to relieve or avoid withdrawal symptoms

"*Abuse*," a somewhat less severe disorder, but, nonetheless, an illness, was confirmed if there was continued use of the substance despite social, occupational, psychological or physical problems caused or exacerbated by use or there was repeated use in situations that were physically hazardous. While regimens differ, both abuse and dependency warrant treatment.

Adult Alcohol and Other Drug Abuse and Dependency

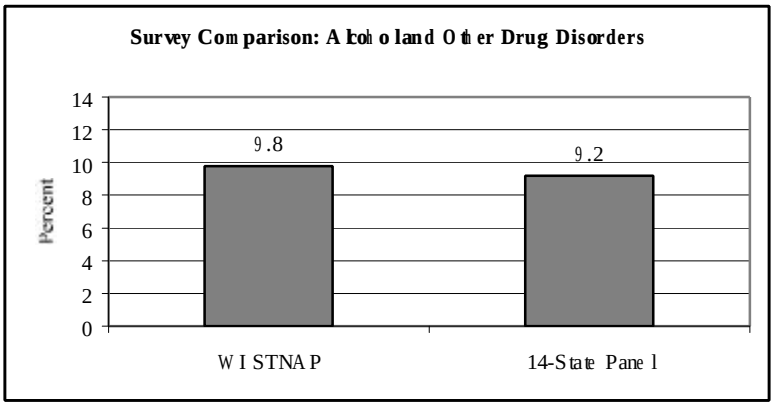
Five percent of the adult sample had a finding of current alcohol dependency; 3.8 percent had a finding of alcohol abuse; 0.7 percent had a finding of other drug dependency; 0.1 percent had a finding of other drug abuse; 9.4 percent had a finding of alcohol dependency or abuse; and 0.8 percent had a finding of other drug dependency or abuse. Overall, 9.8 percent had a finding of any substance dependency or abuse.



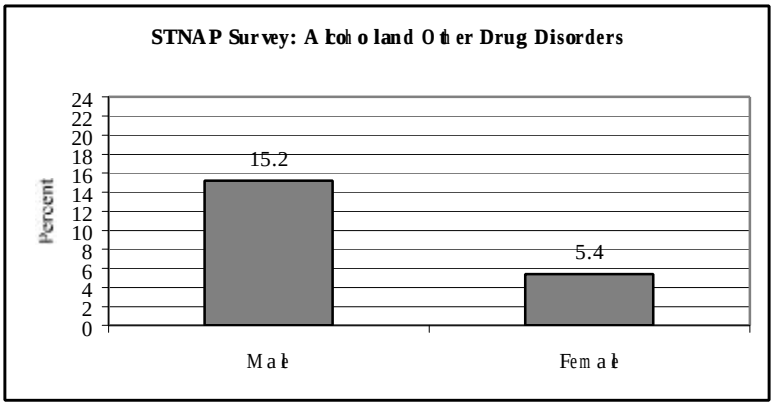
Therefore, the adult need for substance abuse or dependency treatment is estimated to be a minimum of 9.8 percent of Wisconsin's adult population living in households. Using 1990 census figures (Wisconsin population age 18 and over - 3,602,787) the following table estimates the prevalence of substance abuse and dependency among the adult household population. Both the STNAP survey and the 1997 Wisconsin Family Health Survey were in agreement on the proportion of Wisconsin residents that have health insurance coverage (89 and 90 percent respectively). This factor was applied to the prevalence estimates to arrive at the number of persons needing publicly vs. privately supported treatment.

Estimated Total Annual Treatment Need Rate-Adults	9.8%
Estimated Total Annual Treatment Need Population-Adults	353,073
Estimated Privately Supported Treatment Need	316,000
Estimated Publicly Supported Treatment Need	37,073

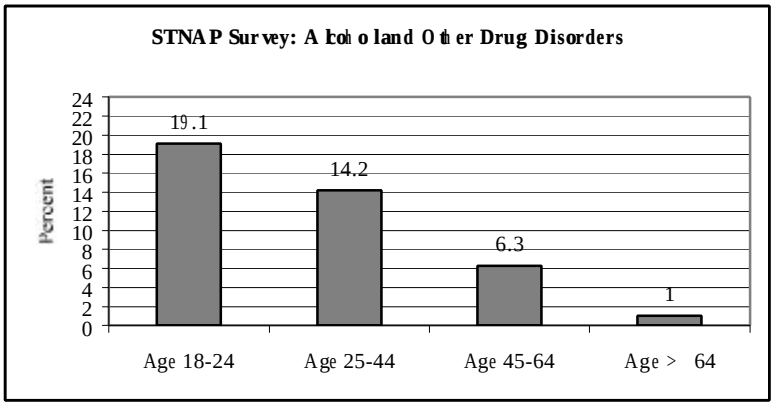
The next chart compares the Wisconsin STNAP findings of abuse or dependency with that of 14 states that conducted similar surveys.



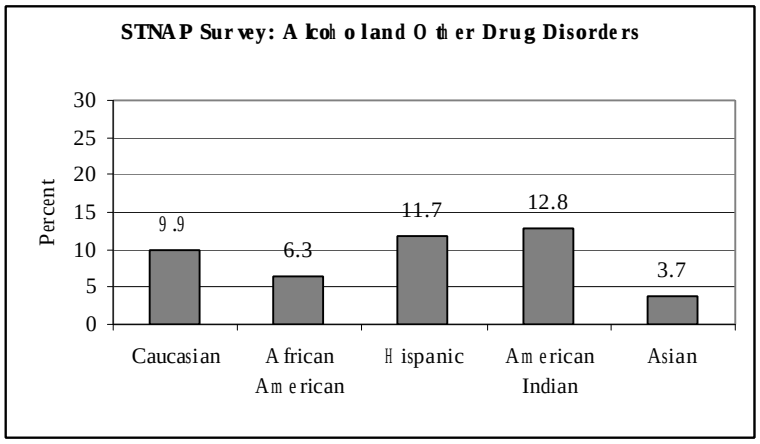
Adult males abuse alcohol or other drugs at a rate three times that of females.



Age is highly correlated with substance disorders.

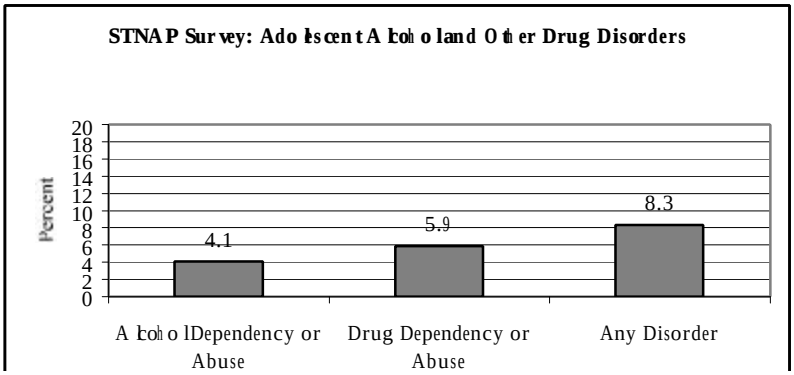


Notable differences exist among ethnic groups.



Adolescent Alcohol and Other Drug Abuse and Dependency

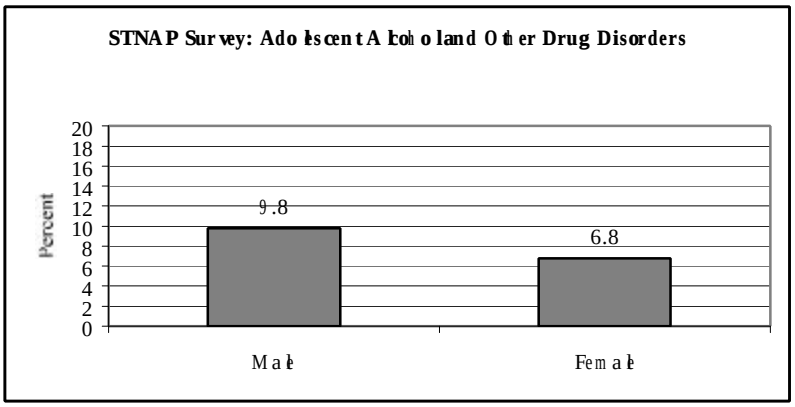
Four (4.1) percent of the adolescent sample had a finding of current alcohol dependency or abuse; 5.9 percent had a finding of other drug dependency or abuse; and 8.3 percent had a finding of any substance dependency or abuse.



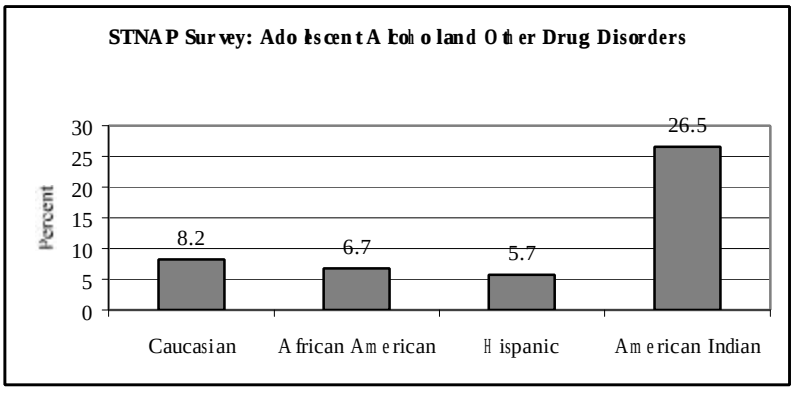
The need for treatment among adolescents is estimated to be a minimum of 8.3 percent of Wisconsin's adolescent population living in households. The following table uses census bureau data for the adolescent population (485,508 persons age 12 to 17) to estimate need. The source of payment factor from the STNAP and Wisconsin Family Health Surveys (89.5 percent) was used to arrive at the public vs. private need.

Estimated Treatment Need Rate-Adolescents	8.3%
Estimated Treatment Need Population-Adolescents	40,297
Estimated Privately Supported Treatment Need	36,066
Estimated Publicly Supported Treatment Need	4,231

The differences in disorder rates among male and female adolescents are smaller than among adults.



The next chart portrays ethnic differences among adolescents.



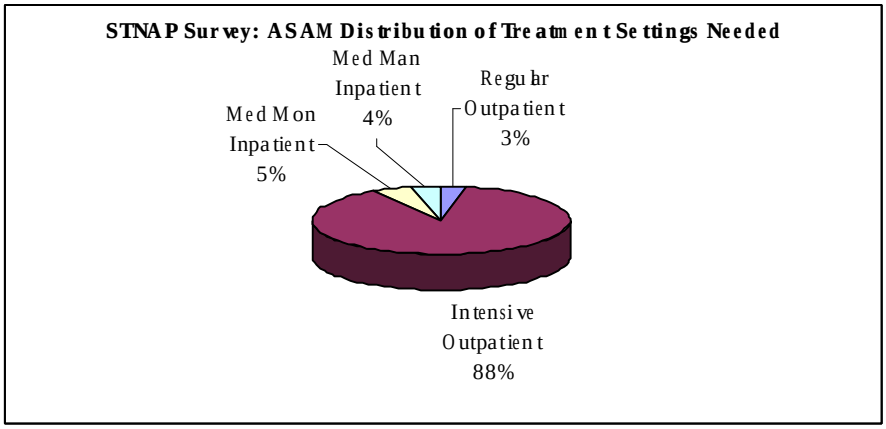
Treatment Settings Needed: Adults

There are four basic treatment settings put forth by the American Society of Addiction Medicine (ASAM),

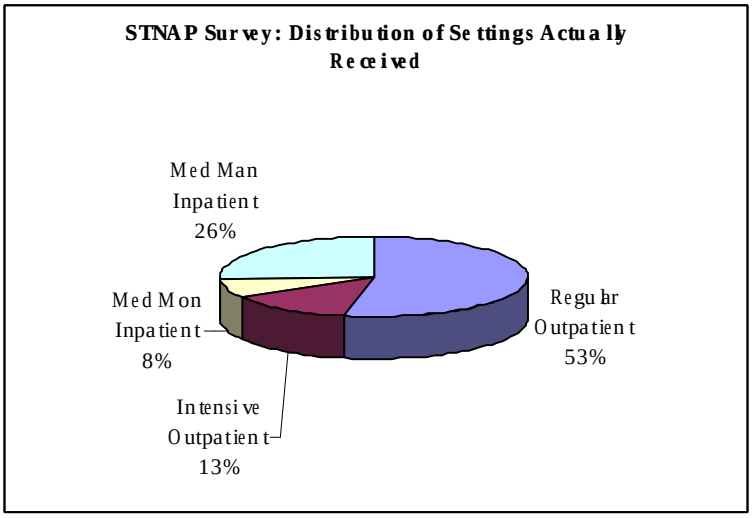
namely:

- Regular outpatient (counseling or therapy for less than 9 hours per week)
- Intensive outpatient (counseling or therapy for 9 hours or more per week for up to 12 weeks)
- Medically monitored inpatient (24-hour care under the general supervision of medical staff)
- Medically managed inpatient (24-hour care directly managed by medical staff with access to the full resources of a general hospital)

While the above-mentioned settings of care are mostly available throughout Wisconsin, there are some rural areas where availability is limited. Applying criteria developed by the American Society of Addiction Medicine (ASAM) to our survey findings, the following distribution of settings is needed in a typical county. In other words, 88 percent of treatment service volume (clients) should be intensive outpatient, 5 percent medically monitored inpatient, 4 percent medically managed inpatient, and 3 percent regular outpatient.



Of those survey respondents who had received alcohol or other drug abuse treatment, the following represents the actual distribution of services:



Met Versus Unmet Demand for Treatment: Adults

Studies have postulated that a very small proportion of persons having substance use disorders actually receive treatment in a given year. This STNAP survey found that only 66 of the 832 (8 percent) adults in need of treatment were actually receiving it at about the time of the survey. Unlike other diseases such as cancer, heart disease, and diabetes, relatively few substance abusers seek treatment. A different way to look at this gap would be to compare those receiving treatment (66) with those who would have started treatment if it were readily available (27). This rate (66+27/66=.71) is much higher. In other words, 71 percent of all those who sought treatment actually received it. While waiting lists and lack of outreach may be factors, STNAP survey respondents that had received treatment were asked if they encountered any barriers to treatment. Only a small percentage of respondents receiving treatment said they encountered barriers and the following were mentioned most frequently:

- work hours conflict
- lack of insurance
- facility too far away or no transportation
- concern about negative reaction from family or friends
- couldn't get the type of treatment wanted

In addition to the obstacles mentioned above, there is also another implied barrier to treatment. Of the 832 respondents who had a current alcohol or drug use disorder, 263 (32 percent) stated that they didn't feel like they had a problem. This lack of awareness is a major hindrance to receiving needed treatment.

Conclusions and Recommendations

Between 30 and 35 percent of Wisconsin adults abstain from drinking alcohol. The majority of Wisconsin adults who do drink, consume alcohol on 4 or fewer days each month and have one or two drinks per occasion. These adult drinkers are not likely to encounter significant health problems from their use.

While there are some inconsistencies among various adolescent surveys, it is apparent that Wisconsin youth consume alcohol at the same rate as in other states, however, drug use appears to be lower among Wisconsin youth compared to the national average. Despite health claims being made about moderate alcohol consumption among adults, non-using adolescents report better health than those adolescents who use alcohol or drugs.

The alcohol and other drug health of a small but significant proportion of Wisconsin adults and adolescents is very poor, however. This report clearly documents the existence and prevalence of alcohol and other mood altering drug use disorders among adults and adolescents in Wisconsin. There is some evidence that the rate (9.8 percent) among Wisconsin adults exceeds the national average. Young males (age 18 to 24) are especially vulnerable. Some 8.3 percent of Wisconsin's 485,508 adolescents (age 12 to 17) have an alcohol or drug use disorder. American Indian youth have a particularly high rate (26.5 percent).

Both dependence and abuse are considered treatable illnesses. The regimen of treatment for each of these illnesses differs somewhat and the know-how exists to tailor the treatment to individual needs. Counseling and therapy for these illnesses are provided in various settings from outpatient clinics to 24-hour residential treatment centers. In outpatient settings, patients live at home, continue their normal work or household routines, and keep individual, family, or group "appointments" one or more times each week.

In an inpatient or residential program, patients live at the facility for 2 or more weeks and participate in structured day, evening and weekend therapy sessions and other activities. Afterwards, patients may begin resuming their normal routine while participating in outpatient services. Family members are encouraged to participate in both outpatient and residential programs.

Alcohol and other drug abuse and dependency, at times, is a relapsing disorder. Recovery from substance abuse problems is comparable to illnesses such as diabetes, hypertension, and smoking cessation. About 40 percent of patients recover. Recovery has alot to do with motivation and social supports. Even with these recovery rates, treatment for substance abuse is cost-effective and a wise investment. In addition to the social benefits, studies have shown that, much like immunizations or prenatal care, there is a $7 return on each dollar invested in alcohol or drug treatment. Economic savings occur in the areas of reduced criminal justice system, health care, and welfare costs, improved productivity on the job and academic performance in the classroom.

Unchecked substance abuse exacts an enormous toll on the health and public safety of Wisconsin residents. Untreated substance abuse costs employers in absenteeism, lowered productivity and morale, higher insurance premiums, accidents, turnover, and hiring and retraining. And yet this study found that only eight percent of those persons having alcohol or drug use disorders were receiving treatment at the time of the survey. A much higher rate was found among those persons who sought treatment and actually received treatment (71 percent).

Many reasons contribute to the under-treatment of persons with alcohol and other drug disorders, among which are:

- ✓ **Lack of Outreach.** Thirty-two percent of those surveyed with substance use disorders failed to recognize that they had a problem. Furthermore, information from the Treatment Capacity Study and the STNAP survey conclude that the private sector (treatment and health insurance agencies) may only be providing addiction services to 15 percent of those in need, whereas the public sector (taxpayer-supported treatment agencies) may be reaching close to 90 percent of those in need. This could be solved with concerted efforts at outreach and public awareness. It is therefore recommended that

businesses (employers), health insurance companies, and administrators of privately-funded substance abuse treatment increase outreach and public awareness activities aimed at increasing those receiving treatment.

- ✓ **Lack of Needed Services.** This study points to a lack of intensive outpatient services. According to American Society of Addiction Medicine criteria, about 88 percent of Wisconsin's adults with alcohol or drug disorders should be receiving a minimum of 9 hours of counseling or therapy each week for a period of about 12 weeks. In reality, only about 13 percent of those treated are receiving this level of care. It is therefore recommended that administrators of public funding and private insurance seek to increase the number of persons receiving treatment in accordance with criteria accepted by the medical and substance abuse treatment field.
- ✓ **Waiting Lists for Treatment.** Seventy-one percent of those seeking treatment actually received treatment. While there are many reasons for this gap, one inference may be that the persons were put on a waiting list. Studies have shown that persons placed on waiting lists have poorer treatment outcomes and may not even start treatment because their motivation has diminished. It is therefore recommended that state and county administrators and treatment centers maintain formal waiting list logs and that this information be communicated to appropriate public and private administrators of funding for treatment.
- ✓ **Work Hours Conflicts.** Wisconsin's unemployment rate is relatively low and most who seek treatment for substance use disorders are employed. In fact, the survey showed that 14 percent of employed survey respondents had a substance use disorder. It is therefore recommended that outpatient treatment programs ensure that their clients' work hours are accommodated, and residential programs ensure that jobs are not lost and finances are maintained.
- ✓ **Lack of Insurance.** Many survey respondents identified this issue as a major barrier to treatment. According to the Wisconsin Family Health Survey, 90 percent of Wisconsin residents have health insurance. However, current coverage for substance use disorders has limits that result in persons being unwilling to seek treatment (due to service limitations, ceilings on payments, and co-pay amounts) and treatments being terminated prematurely. It is therefore recommended that state policy makers and private insurers engage in activities that will expand coverage, remove payment ceilings, and adjust co-pay amounts to make sure that insurance coverage is not a barrier to treatment.
- ✓ **Distance to Facilities.** Another major barrier to treatment has to do with the location of treatment centers and transportation to such facilities. Oftentimes patients' driver's licenses are suspended or revoked and in rural areas the distance to travel becomes an obstacle. Treatment centers should ensure that there is no more than one hour travel to residential facilities and no more than 30 minutes travel to outpatient facilities. Arranging rides, locating centers on public transportation routes (in urban areas), or making in-the-home visits are other solutions.
- ✓ **Stigma.** Survey respondents related that "negative reactions from family and friends" was a significant barrier to treatment. Each year, at least 30,000 Wisconsin adults begin recovery from alcohol or drug abuse or dependency. They return to being productive and valued members of our communities. And yet there still seems to be "shame" or "weakness of character" associated with this illness. Persons with the illness or recovering from it should be treated with the same respect that we all deserve. Through creative use of the media (newspapers, radio, and television) and other public awareness activities, the stigma of having a substance use disorder can be removed.

It is imperative that the findings from this study be used in the planning and allocation of resources. To this end it is recommended that this study and the other four studies included in the needs assessment project be integrated and that county-specific prevalence data be produced for use by state and county decision- makers. The resulting formulas and data should also be used in planning efforts related to managed health care.